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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,783	05/27/2004	Mohammed Moin Hussaini	146128CT	3782
23413	7590	11/23/2007		
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			EXAMINER MEHTA, PARIKHA SOLANKI	
			ART UNIT 3737	PAPER NUMBER
			MAIL DATE 11/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/709,783

Applicant(s)

HUSSAINI ET AL.

Examiner

Parikha S. Mehta

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 October 2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Susil (WO 02/22015) in view of Onik (US Patent No. 4,583,538), hereinafter Susil ('015) and Onik ('538), respectively, both references having been previously made of record.

Regarding claims 1-8, 16 and 21, Susil ('015) teaches a method and system for guiding an end effector to a target position, wherein the end effector is spatially associated with a robot coordinate system (Abstract, p. 7 lines 24-27), including steps for generating a plurality of CT images, indicating a skin entry position, indicating a target position, determining a trajectory path, registering the robot and image coordinate spaces using a fiducial component associated with the end effector, and moving the end effector along the trajectory path (Figs. 1 & 2, p. 4 lines 14-19 & 24-25, p. 5 lines 7-8 & 21-25, p. 6 lines 17-18 & 21-25, p. 9 lines 1-6, p. 14 lines 6-19). Since the end effector of Susil ('015) is moved by a computerized means, it is considered to move at a predetermined speed as claimed in the instant application.

Furthermore, Susil ('015) teaches that the method and system may be used for a variety of biopsy and/or therapeutic procedures (p. 14 line 24 – p. 15 line 5). The system provided by Susil ('015)

additionally includes computers for generating, displaying and registering the image data (Figs. 1 & 2). Susil ('015) lacks means and steps for monitoring a respiratory state of the subject over time.

In the same field of endeavor of CT-guided biopsy, Onik ('538) teaches means and steps for monitoring the patient's respiratory phase for ensuring that the biopsy steps are performed during the same phase of respiration (col. 2 lines 20-22, col. 6 lines 43-46). Onik ('538) states that the movement of the instrument should be gated based upon the patient's respiratory phase via a gating device, which is considered to be an implicit teaching of means and steps for stopping movement of the instrument when the patient is not in the predetermined respiratory phase (col. 9 lines 15-27). Onik ('538) additionally teaches respiratory phase monitoring is effective to enhance precision of surgical localization in the abdominal cavity while the patient is experiencing respiratory motion (col. 1 line 65 – col. 2 line 8). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Susil ('015) to further include the respiratory monitoring means and steps of Onik ('538), in view of the teachings of Onik ('538).

Regarding claim 7, neither Onik ('538) nor Susil ('015) expressly discuss using an infrared respiratory measurement device. Applicant has failed to disclose that the use of an infrared measurement device provides a distinct advantage or solves a particular problem. Furthermore, one of reasonable skill in the art at the time of invention would expect the instant invention to work equally well with an infrared measurement device or the reference measurement device. It follows, then, that it would have been an obvious matter of design choice to one of reasonable skill in the art at the time of invention to use an infrared respiratory measurement device with the system of Susil ('015), as modified by Onik ('538).

Regarding claims 9-11, Susil ('015) provides a driver configured to linearly move the end effector, a positioning device for positioning the end effector, and an insertion device for orienting the end effector along the trajectory path (p. 9 lines 23-29).

Regarding claim 12, state of the art CT systems are known to include computerized means of positioning the patient to obtain a series of axial image slices during scanning.

Regarding claim 13, the means for determining whether or not the patient is in a particular respiratory phase as taught by Onik ('538) constitutes determining whether the patient's monitored respiratory state is less than or equal to a threshold.

Regarding claim 14, since the end effector of Susil ('015) is moved by computerized means, it is considered to move at a predetermined speed as claimed in the instant application.

Regarding claims 15-20, the computerized system of Susil ('015) and Onik ('538) must inherently include code for executing the steps as previously discussed for claims 1, 6 and 15.

Regarding claims 22 and 23, Onik ('538) teaches generating a gating signal in response to the patient's respiratory phase and subsequently moving the end effector in response to the gating signal (col. 2 lines 20-22). Moving the end effector must necessarily require a plurality of steps, including at least the steps of transmission of a signal from gating device to the robot, and subsequent movement of the end effector in response to such signal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parikha S. Mehta whose telephone number is 571.272.3248. The examiner can normally be reached on M-F, 8 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571.272.4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Parikha S. Mehta

Examiner – Art Unit 3737



Brian Casler
SP5 3737